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| 10/697,819 | 10/31/2003 | James B. Skov | 013628.00519 (02CXT0049C) | 9523 |
| 77339 | 7590 | 07/17/2008 | | |
| JACKSON WALKER (CONEXANT) 901 MAIN STREET, SUITE 6000 DALLAS, TX 75202 | | | | |
| EXAMINER | | | | |
| SINGH, RAMNANDAN P | | | | |
| ART UNIT | | PAPER NUMBER | | |
| 2614 | | | | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/697,819

Applicant(s)

SKOV ET AL.

Examiner

Ramnandan Singh

Art Unit

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SI/ICE)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☒ Other: Non-Final Rejection

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Hershberger [US Provisional Application No. 60/474,009].

Regarding claim 15, Hershberger discloses a system-side isolation controller, as shown in Fig. 2-1, comprising:

signal generator, wherein host sends digital information for transmission [Fig. 2-1];

signal modulator capable of modulating a signal produced by the signal generator; and inbound data recovery unit capable of determining inbound data by sensing load modulations exhibited by a transformer [Figs. 1-1, 2-1; page 4, line 4 to page 6, line 2; page 14, line 1 to page 17, line

10].

Regarding claim 16, Hershbarger further discloses the system-side isolation controller, comprising a transformer driver capable of driving the transformer with the modulated signal [Fig. 2-1].

Regarding claim 17, Hershbarger discloses a line-side isolation controller, as shown in Fig. 1-1, comprising:

data extractor capable of extracting outbound data from a modulated signal received from a second side of a transformer ; and

transformer load modulator capable of modulating the load presented to the second side of the transformer according to inbound data [Fig. 1-1; page 10, line 5 to page 11, line 1; page 18, line 1 to page 20, line 35].

Regarding claim 18, Hershbarger further discloses the line-side isolation controller, wherein the data extractor comprises:

clock extractor capable of extracting a clock signal from a received modulated signal ; and

sampling device capable of sampling the received modulated signal according to the extracted clock signal [Page 17, lines 12-28].

Regarding claim 19, Hershberger further discloses the line-side isolation controller, wherein the clock extractor comprises:

controllable oscillator capable of generating a clock according to a control signal; and comparator capable of generating the control signal by comparing transitions in a received modulated signal with transitions in the generated clock [pages 23-27]..

Regarding claim 20, Hershberger further discloses the line-side isolation controller:

digital-to-analog converter capable of generating an analog signal according to extracted outbound data ;

analog gate capable of linearly imparting a first impedance element across a line circuit load according to the analog signal ;

analog-to-digital converter capable of generating a digital value according the voltage present across the line circuit load; impedance element; and switch capable of attaching a second impedance element the

second side of the transformer according to the digital value [Figs. 1-2, 2-1].

Regarding claim 1, Hershbarger discloses a method for conveying bidirectional (i.e. full-duplex) data over a transformer , comprising the steps of:

modulating an alternating current signal with outbound data;
driving a first side of the transformer with the modulated signal;
receiving the modulated signal from a second side of the transformer; and
extracting outbound data from the received modulated signal [Figs. 1-1, 3-1];

modulating according to inbound data the load presented to the second side of the transformer when the alternating current signal is not modulated ; and

receiving inbound data by sensing the load modulation [Figs. 1-1, 2-1; page 6, line 3 to page 8, line 12].

Regarding claim 8 Hershbarger discloses an apparatus for conveying bidirectional data across a galvanic barrier comprising:

signal generator, wherein host 150 sends digital information for transmission [Fig. 1-1] ;

signal modulator capable of modulating with outbound data a signal produced by the signal generator [page 14, line 1 to page 15, line 25];

transformer a first side capable of receiving a modulated signal from the signal modulator and a second side [Fig. 1-1]

data extractor capable of extracting outbound data from a modulated signal received from the second side of the transformer;

transformer load modulator capable of modulating the load on the second side of the transformer according to inbound data Figs. 1-1, 2-1];
and

inbound data recovery unit capable of determining inbound data by sensing load modulations induced by the transformer load modulator [Fig. 1-1; page 10, line 5 to page 11, line 1; page 18, line 1 to page 20, line 35]..

Regarding claims 2-5-7, 9-14, the limitations are shown above.

Response to Arguments

3. Applicant's arguments filed on Apr 30, 2008 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramnandan Singh whose telephone number is (571) 272-7529. The examiner can normally be reached on M-TH (8:00-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang can be reached on (571) 272-7547. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ Ramnandan Singh/
Primary Examiner
Art Unit 2614